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Power Cloning™ DNA Modulase™

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A description of the DNA Modulase™ reagent.

SapWO™ - A restriction enzyme/polymerase reagent formulated with SapI and Psp polymerase. The reagent is designed to restrict DNA and produce a blunt end by extending the overhang with Psp polymerase.

>SapI
MRRLATQRREDAYKSNRDYQTVHEAQSLRVNSTDDDNLSLFLLKDISPREDSKNIVGFGGFVKPEIATTMALTLTTDIDKQIKSVPLSSNWNRISIVAKFASNPSVSITLGFDQTPWVDFWGINSDDI
GLSFVSDAVPLEMSMIDSIHIAPETLYLDHSSACLLDIDPVESTRFKTGHGDPLSLKKCSYCGRLLPIDLERPGKLSFHKHRAKITNHQNECRSCKKWRINNSFNPMRTIDQLNESALITRERKIFLQEP
EILQEIKDRTGAGLKSQVWERFHRKCFNCRKDLKLSEVQLDHTRPLAYLWPIDEHATCLCAQCNNTKKDRFPVDFYSEQQIRELSDICGLPYQDLCARSLNLDQLDRIERNIAEFSKEWDVRTFASTA
RRISEVYPARDLFETLKKESESAYNKIIEKLKERPDALLDEALPLD*

>SapI.M1
MLETLELVNKIAEFQRKLPYTQDDYKSRSWGHPLHSLCSYQGKLKPSLAHWLVKTFSPEGGTVLDPMGGVGTIAFEAALTGRVGITNDKSPLAATVTAGKLAPSSILEAEEAIGRLAEDIESVDLSAAD
YEAANFGLNARVSDYYHPDTLKEILRARRIFSERREAYPAFVWASLLHVLHGNRPYALSRISHPITPFNPSGVAEYRSVVEKIAHRARLALRNPLPEAFTSGAAIEGDFRDLSEHINEPVDAIITSPPFM
GMRFDRPNWLRLWFCGWDAEDFWTTSLGFLERHQVKSRDSYIDFFEMSIKTLKQDGLLVMHLGSGGKKNLVNDLKSLAVPLFELAGEVIEDVDDHQTHGIRDRGLTTKHHLLFFKPA*

>SapI.M2
MSVDAPSPARRRGQAATSGRGTNENRLPIDLGVTFRDNRNRPVHSWYPYVEGFSAAYVEGVLAPYNGHNVAVYDPFGGSGTLQSTASWLGINSFYSEVNPFMRFVAEAKVNATLKAAQNKDVFRC
AAKEFLDMLSEKELAHRGRSVDLSQYYSAFPGRDFFEEEHIRQLLAACDAARLIGSDYAWVRQLLLLACAANAVHSSNMTRRADLRRRRQNEYINRKVDVARFISDTVQAMLDDVEQVPFGAVASH
YVSDDCRDLPSRYIDCFDIAITSPPYLNGTNYFRNTKIELWLLGFLSHESELPKFCREAITAGINNVSGNKALDHHFDVVEDVATKLDDVAPDRRIPKLVRHYFSDMYEVLTSVRSSLRLGGRFILDIGD
SKFYGVHVPVDRILVELGKQVGFQLHQDVVIARRHSRDKTPLVQVELEFRKA*

> Psp Vent Polymerase™ MHHHHHHSSGLVPRGSGMKETAAAKFERQHMDSPDLGTDDDDKMIIDADYITEDGKPIIRIFKKEKGEFKVEYDRTFRPYIYALLKDDSAIDEVKKI
TAERHGKIVRITEVEKVQKKFLGRPIEVWKLYLEHPQDVPAIREKIREHPAVVDIFEYDIPFAKRYLIDKGLTPMEGNEELTFLAVDIETLYHEGEE
FGKGPIIMISYADEEGAKVITWKSIDLPYVEVVSSEREMIKRLVKVIREKDPDVIITYNGDNFDFPYLLKRAEKLGIKLPLGRDNSEPKMQRMGDSL
AVEIKGRIHFDLFPVIRRTINLPTYTLEAVYEAIFGKSKEKVYAHEIAEAWETGKGLERVAKYSMEDAKVTFELGKEFFPMEAQLARLVGQPVWDVS
RSSTGNLVEWFLLRKAYERNELAPNKPDEREYERRLRESYEGGYVKEPEKGLWEGIVSLDFRSLYPSIIITHNVSPDTLNRENCKEYDVAPQVGHRF
CKDFPGFIPSLLGNLLEERQKIKKRMKESKDPVEKKLLDYRQRAIKILANSYYGYYGYAKARWYCKECAESVTAWGRQYIDLVRRELESSGFKVLYI
DTDGLYATIPGAKPNEIKEKALKFVEYINSKLPGLLELEYEGFYARGFFVTKKKYALIDEEGKIVTRGLEIVRRDWSEIAKETQAKVLEAILKHGNV
DEAVKIVKEVTEKLSKYEIPPEKLVIYEQITRPLSEYKAIGPHVAVAKRLAAKGVKVKPGMVIGYIVLRGDGPISKRAIAIEEFDPKKHKYDAEYYI
ENQVLPAVERILRAFGYRKEDLRYQKTKQVGLGAWLKF*

> Pfu+ UTPase™ MHHHHHHSSGLVPRGSGMKETAAAKFERQHMDSPDLGTDDDDKMLHHVKLIYATKSRKLVGKKIVLAIPGSIAAVECVKLARELIRHGAEVHAVMSE
AATKIIHPYAMEFATGNPVITEITGFIEHVELAGEHENKADLILVCPATANTISKIACGIDDTPVTTVVTTAFPHIPIMIAPAMHETMYRHPIVREN
IERLKKLGVEFIGPRIEEGKAKVASIDEIVYRVIKKLHKKTLEGKRVLVTAGATREYIDPIRFITNASSGKMGVALAEEADFRGAEVTLIRTKGSVK
SFVENQIEVETVEEMLSAIENELRSKKYDVVIMAAAVSDFRPKIKAEGKIKSDRSITIELVPNPKIIDRIKEIQPNVFLVGFKAETSKEKLIEEGKR
QIERAKADLVVGNTLEAFGSEENQVVLIGRDFTKELPKMKKRELAERIWDEIEKLLS*

NopWO A restriction enzyme/polymerase reagent formulated with NotI and Psp polymerase. The reagent is designed to restrict DNA and produce a blunt end by extending the overhang with Psp polymerase.

>NotI
MRSDTSVEPEGANFIAEFFGHRVYPEVVSTEAARNDQATGTCPFLTAAKLVETSCVKAETSRGVCVVNTAVDNERYDWLVCPNRALDPLFMSAASRKLFGYGPTEPLQFIAAPTLADQAVRDGIREW
LDRGVHVVAYFQEKLGGELSISKTDSSPEFSFDWTLAEVESIYPVPKIKRYGVLEIQTMDFHGSYKHAVGAIDIALVEGIDFHGWLPTPAGRAALSKKMEGPNLSNVFKRTFYQMAYKFALSGHQRCA
GTGFAIPQSVWKSWLRHLANPTLIDNGDGTFSLGDTRNDSENAWIFVFELDPDTDASPRPLAPHLEIRVNVDTLIDLALRESPRAALGPSGPVATFTDKVEARMLRFWPKTRRRRSTTPGGQRGLFD
A*

>NotI.M1
MSGPRLHVGISVCGSLTGLWITRSRRTPVRVVIPYDACVTSLSSYDSAIDDPTVEVRQGDAYDLASGLDPQSIDLIITSPPYWGMRTYGHDHSEDVLDEWVAEGNHATDVPPYEWYREHGGLLGME
PIPEWFISHLVEIFERLRPALKLGGSVWVNLGDTYFARWSSIRSDGRQGLGDNPRTRRKTPMGGYRQEKQLMLIPSRFAIAMQDKRWILRNDLIWHKPNVAPRPEKDRLRLAHEHFFHFVLRPKEG
RAKYYYDTSAVEEGTRDVVTVNVRSGSDGHSATFPPDLIRPRIESSSPVGGLVLDPFAGTGRALGVAAELGRSAIGFELSEEFTQAATRNAEASANALRLL*
> Psp Vent Polymerase™ MHHHHHHSSGLVPRGSGMKETAAAKFERQHMDSPDLGTDDDDKMIIDADYITEDGKPIIRIFKKEKGEFKVEYDRTFRPYIYALLKDDSAIDEVKKI
TAERHGKIVRITEVEKVQKKFLGRPIEVWKLYLEHPQDVPAIREKIREHPAVVDIFEYDIPFAKRYLIDKGLTPMEGNEELTFLAVDIETLYHEGEE
FGKGPIIMISYADEEGAKVITWKSIDLPYVEVVSSEREMIKRLVKVIREKDPDVIITYNGDNFDFPYLLKRAEKLGIKLPLGRDNSEPKMQRMGDSL
AVEIKGRIHFDLFPVIRRTINLPTYTLEAVYEAIFGKSKEKVYAHEIAEAWETGKGLERVAKYSMEDAKVTFELGKEFFPMEAQLARLVGQPVWDVS
RSSTGNLVEWFLLRKAYERNELAPNKPDEREYERRLRESYEGGYVKEPEKGLWEGIVSLDFRSLYPSIIITHNVSPDTLNRENCKEYDVAPQVGHRF
CKDFPGFIPSLLGNLLEERQKIKKRMKESKDPVEKKLLDYRQRAIKILANSYYGYYGYAKARWYCKECAESVTAWGRQYIDLVRRELESSGFKVLYI
DTDGLYATIPGAKPNEIKEKALKFVEYINSKLPGLLELEYEGFYARGFFVTKKKYALIDEEGKIVTRGLEIVRRDWSEIAKETQAKVLEAILKHGNV
DEAVKIVKEVTEKLSKYEIPPEKLVIYEQITRPLSEYKAIGPHVAVAKRLAAKGVKVKPGMVIGYIVLRGDGPISKRAIAIEEFDPKKHKYDAEYYI
ENQVLPAVERILRAFGYRKEDLRYQKTKQVGLGAWLKF*

> Pfu+ UTPase™ MHHHHHHSSGLVPRGSGMKETAAAKFERQHMDSPDLGTDDDDKMLHHVKLIYATKSRKLVGKKIVLAIPGSIAAVECVKLARELIRHGAEVHAVMSE
AATKIIHPYAMEFATGNPVITEITGFIEHVELAGEHENKADLILVCPATANTISKIACGIDDTPVTTVVTTAFPHIPIMIAPAMHETMYRHPIVREN
IERLKKLGVEFIGPRIEEGKAKVASIDEIVYRVIKKLHKKTLEGKRVLVTAGATREYIDPIRFITNASSGKMGVALAEEADFRGAEVTLIRTKGSVK
SFVENQIEVETVEEMLSAIENELRSKKYDVVIMAAAVSDFRPKIKAEGKIKSDRSITIELVPNPKIIDRIKEIQPNVFLVGFKAETSKEKLIEEGKR
QIERAKADLVVGNTLEAFGSEENQVVLIGRDFTKELPKMKKRELAERIWDEIEKLLS*

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